



Thank you for selecting JELD-WEN products. Attached are JELD-WEN's recommended installation instructions for Aluminum windows with an integral nail fin. While the use of these installation instructions is recommended, installation in strict compliance with AAMA specifications (2400-02) is an alternate method of window installation. Use of the AAMA specifications (2400-02) will not affect application of the JELD-WEN limited warranty.

Newer construction methods have led to an increase in air and water tightness in buildings. This frequently leads to negative air pressure inside the home, which can draw water through very small openings. Our installation method integrates the window with the weather barrier of the structure (typically building wrap).

IMPORTANT INFORMATION & GLOSSARY

Not all window types may be installed into every wall condition in all areas. Consult your local building code official for applicable building codes and regulations. Local building code requirements supersede recommended installation instructions.

Please Note! Installations where the sill is higher than 35 feet above ground level, or any product installation into a wall condition not specifically addressed in these instructions, must be designed by an architect or structural engineer. Failure to install windows into square, level, and plumb openings could result in denial of warranty claims for operational or performance problems.

Note to Installer: Provide a copy of these instructions to the building owner. By installing this product, you acknowledge the terms and conditions of the limited product warranty as part of the terms of the sale.

Estimated Install Time for New Construction	<input type="text"/>	First Time: 3 hrs	
	<input type="text"/>	Experienced: 2 hrs	
	<input type="text"/>	Professional: 1 hr	

GLOSSARY

Buck

A wood framework attached to the masonry inside a window or patio door rough opening.

Mull Joint

The joint where two or more window units are structurally joined together.

Mulled Unit

Two or more window units structurally joined together.

Precast Sill

A pre-formed concrete block placed in the sill of a masonry/block wall to support a window.

Shiplap

The layering method in which each layer overlaps the layer below it so that water runs down the outside.

Weep Hole (weep channel)

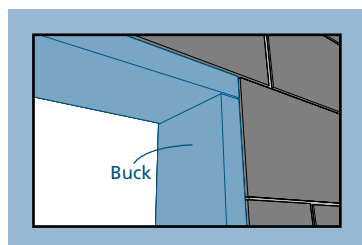
The visible exit or entry part of a water drainage system used to drain water out of a window.

ROUGH OPENINGS

This installation guide specifically addresses masonry/block wall, sheathed wall and open-stud construction.

MASONRY/BLOCK WALL CONSTRUCTION

This installation assumes that a framework of studs (often called a buck) has already been properly fastened and sealed to the concrete/masonry wall by a building professional.



FULLY SHEATHED WALL CONSTRUCTION

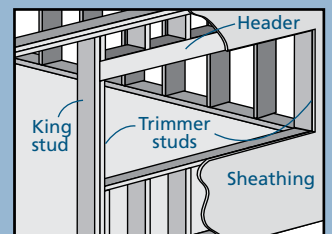
The wall framing is covered by sheathing. Windows will be mounted flush against the sheathing. This installation assumes building wrap is properly installed prior to installation.

OPEN-STUD CONSTRUCTION

The wall framing must be covered by backing support before the window can be installed. The window will be mounted with the nail fin flush against the applied backing support.

This backing support should be a non water-degradable, thin (max. 1/8" thick) sheet material such as vinyl sheathing. Completely surround the rough opening with the backing support. Backing support must be applied before building wrap.

Sheathed Wall



SAFETY & HANDLING

SAFETY

- Read and fully understand ALL manufacturers' instructions before beginning.
- Do not work alone. Two or more people are required. Use safe lifting techniques.
- Use caution when handling glass. Broken or cracked glass can cause serious injury.
- Wear protective gear (e.g. safety glasses, gloves, ear protection, etc.).
- Operate hand/power tools safely and follow manufacturer's operating instructions.
- Use caution when working at elevated heights.

MATERIALS AND WINDOW HANDLING

- Make sure operable windows are locked prior to installation.
- Heed material manufacturers' handling and application instructions.
- Protect adhesive surfaces from dirt, moisture, direct sunlight and folding over onto themselves.
- Handle in vertical position; do not carry flat or drag on floor.
- Do not put stress on joints, corners or frames.
- Store window in dry, well-ventilated area in vertical, leaning position to allow air circulation; do not stack horizontally.
- Protect from exposure to direct sunlight during storage.
- Install only into vertical walls and when conditions and sheathing are dry.

IF INJURY OCCURS, IMMEDIATELY SEEK MEDICAL ATTENTION!

NEEDED MATERIALS & TOOLS

NEEDED MATERIALS

Note! Follow all material manufacturers' instructions for proper use and compatibility.

- 1 3/4" galvanized roofing nails. Nails must penetrate at least 1" into framing (or as required by local code)
- For mulled and/or DP50 or above units: #10 x 1 1/2" truss head or washer head (stainless steel recommended) screws. Screws must penetrate at least 1" into framing (or as required by local code)
- Sealant (Protecto Wrap Protecto Sealant 25XL or equivalent)
- Backer rod
- Polyurethane low expansion foam (Dow Great Stuff™ Window and Door or equivalent)
- Shims – not water degradable or compressible

For installations into a stud-framed wall:

- JELD-WEN 4" drain mat material or equivalent
- JELD-WEN 4" wide self adhesive flashing or equivalent, 6" for windows rated above DP50 (9" if required by local code)
- Spray adhesive/primer (Protecto Wrap Safseal Systems 5500 or as recommended by the self-adhesive flashing manufacturer)

For installations into a buck:

- Liquid applied flashing (Protecto Wrap LWM 200 or equivalent)

TOOLS

- Utility knife
- J-roller
- Hammer
- Tape measure
- Caulking gun
- Construction stapler with 3/8" staples
- Level (4' minimum recommended)
- Drill with bits

1 REMOVE PACKAGING & INSPECT WINDOW

REMOVE PACKAGING

Remove shipping materials such as corner covers, shipping blocks or pads. If there is a protective film on the glass, do not remove it until installation and construction are complete.

INSPECT WINDOW

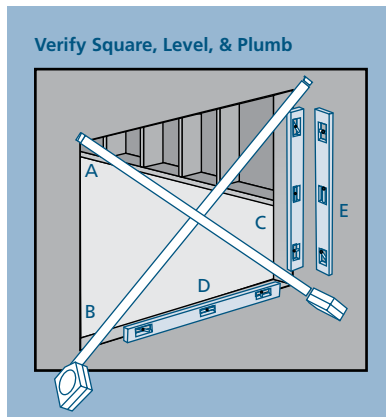
- Cosmetic damage
- Product squareness (diagonal measurements not more than 1/8" different)
- Correct product (size, color, grid pattern, handing, glazing, energy-efficiency requirements, etc.)

- Splits, cracks, holes, missing sections or other damage to the nail fin longer than 6" and/or within 1/2" of window frame
- For side-by-side mullled units, a drip cap that extends the length of the frame plus 1/8" overhang on each end is required.

If any of the above conditions represent a concern, or if you expect environmental conditions to exceed the window's performance rating, do not install the window. Contact your dealer or distributor for recommendations.

2 INSPECT ROUGH OPENING

- Verify the width and height of the window are each 1/2" - 5/8" smaller than the rough opening width and height. Mullled units should be 3/4" narrower.
- Verify the rough opening is square. The (A) and (B) measurements above should be the same. Maximum allowable deviation from square is 1/8" for windows 20 sq. ft. and smaller, and 1/4" for windows larger than 20 sq. ft.

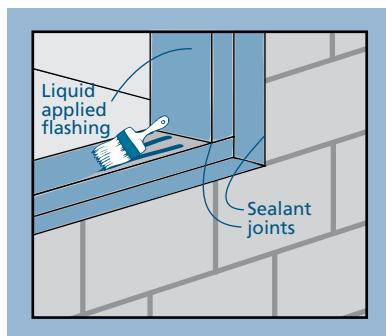


- Verify the rough opening is level and plumb (C) and (D). The maximum allowable deviation is 1/16" for every 2' of rough opening (not to exceed 1/8").
- The rough opening sill must not be crowned or sagged (D).
- The exterior face of the rough opening must be in a single plane (E) with less than 1/8" twist from corner to corner.
- Verify the header is supported by trimmer studs.

3 PREPARE BUCK

Note! This section applies to installations into a masonry wall only. For installations into a stud-framed wall, begin with section 4, "PREPARE STUD-FRAMED WALL."

1. Seal any joint larger than 1/16" in the buck and between the buck and the concrete/masonry with sealant.
2. Cover the buck and the surrounding concrete/masonry at the head and jambs with liquid applied flashing as shown.



3. If installing into a four-sided buck, seal the sill in a similar manner.

Note! Shims must be at least 1/4" shorter than the depth of the window sill, should level the rough opening sill and be no more than 1/4" thick.

4. Shim the sill 4" from each corner, at 8" intervals, and underneath mull joints, on both sides, with non water-degradable or compressible shims. Secure shims with sealant. **SKIP to section 5, "INSTALL WINDOW."**

4 PREPARE STUD-FRAMED WALL

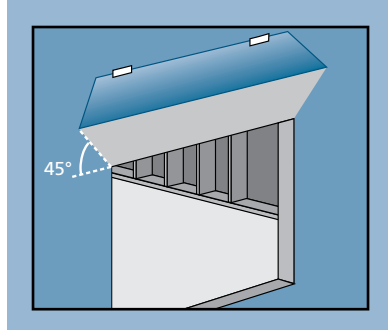
FOR RETROFIT INSTALLATIONS

After removing the old window, remove sufficient siding to expose enough intact building wrap to properly seal the window to the opening. If damaged, apply new building wrap in shiplap manner. Verify the rough opening framing is structurally sound. Continue with the instructions.

PREPARE BUILDING WRAP

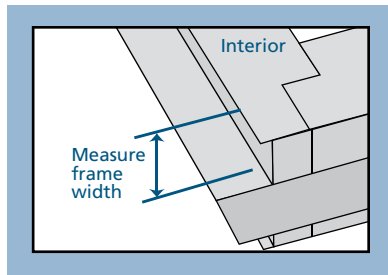
Note! Check with the building wrap manufacturer to verify the following steps will not void their product warranty. Follow manufacturers' instructions.

1. Trim building wrap flush with the rough opening.
2. At the head, cut building wrap at 45° and tape up as shown.

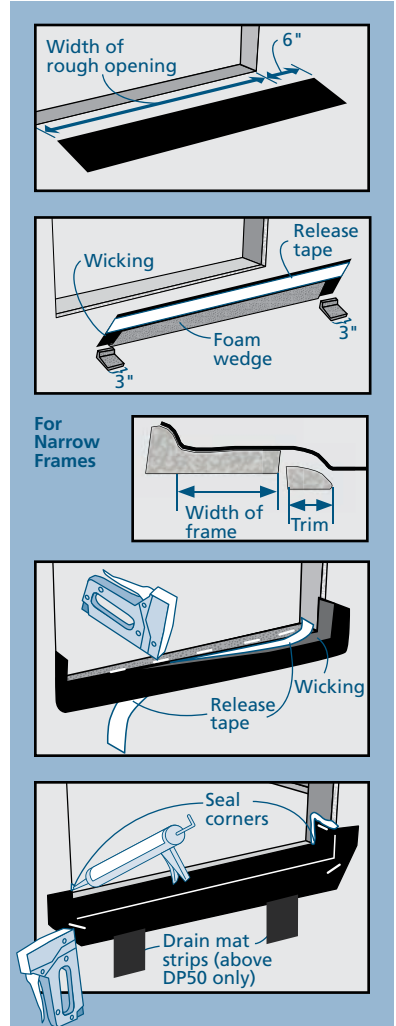


PREPARE SILL

1. Measure the width of the frame from the interior to the nail fin and add 1/8". Transfer this measurement from the outside edge of the rough opening sill and draw a line all along the rough opening sill. This is where the back of the JELD-WEN drain mat will sit.



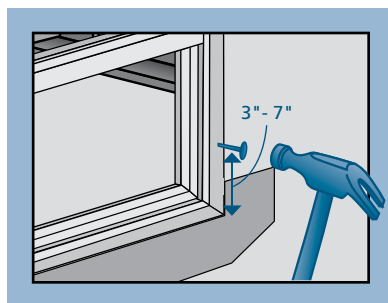
2. Cut a piece of drain mat the length of the sill plus 6".
3. Without cutting the drain mat material, remove 3" of the foam wedge from each end of the JELD-WEN drain mat. If the width of the frame is narrower than the width of the foam wedge, also trim the front edge of the foam until it is the same width as the frame.
4. Place drain mat on rough opening sill, wrapping the drain mat up 3" on each jamb as shown.
5. Pull release tape and set JELD-WEN drain mat into place.
6. Lift up the back of the wicking and staple into place on the sill.
7. Fold the drain mat down onto the sheathing. Staple drain mat to the wall and seal the corner edges as shown.
8. For additional drainage for windows rated above DP50, cut a 2" wide strip of drain mat and apply vertically beneath the drain mat at 12" intervals. Slightly overlap the drain mat with the strips.
9. Smooth out any bubbles or creases with a J-roller.



5 INSTALL WINDOW

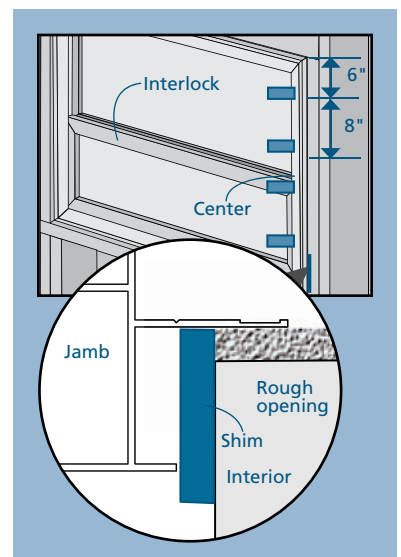
WARNING! To avoid injury, use at least two people to install. Adequately support the window until completely fastened.

1. For units rated above DP50, run a continuous 3/8" bead of sealant around the interior side of the nail fin where it will contact the rough opening.
2. Place window sill onto the drain mat/liquid applied flashing and tilt into the rough opening. The window sill must rest on and be fully supported by the rough opening.
3. Fasten window with a galvanized roofing nail through the nail fin between 3"-7" from one lower corner.
4. Shim side jambs 4"-6" from



each corner, at the center point, and 8" apart.

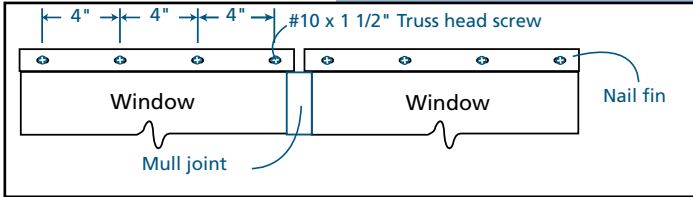
5. Inspect window for square, level, and plumb. Test for proper operation (remove and reinstall if necessary).



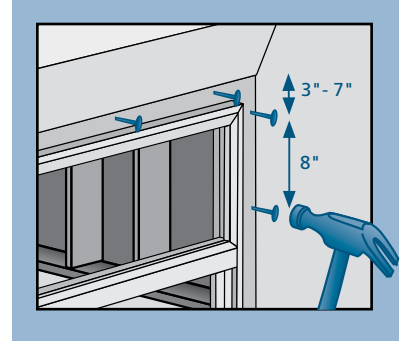
5 INSTALL WINDOW - CONTINUED

SECURE WINDOW

Note! Fastener heads must be flush. Do not dent nail fin. The first 12" beyond mull joints, on both sides, must be fastened through each nail fin hole with #10 x 1 1/2" truss head screws.



- Fasten windows rated less than DP50 through the nail fin holes 3" - 7" from the corners and 8" apart all the way around the window.
- Fasten windows rated DP50 or above every 4".
- Remove the shims from the side jambs.



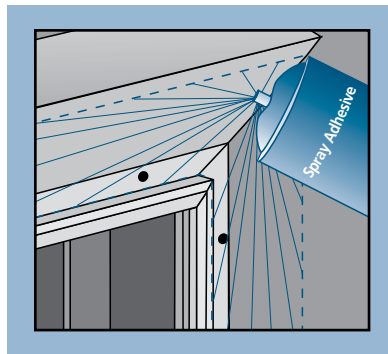
6 FLASH WINDOW - WINDOWS INSTALLED INTO STUD-FRAMING ONLY

Cut pieces of self-adhesive flashing as follows:

	DP50 or below (4" flashing)	Above DP50 (6" flashing)
One header piece	10" longer than the header	14" longer than the header
Two side pieces	7" longer than the jamb	10" longer than the jamb
One sill piece	N/A	6" longer than the sill

SPRAY ADHESIVE/PRIMER

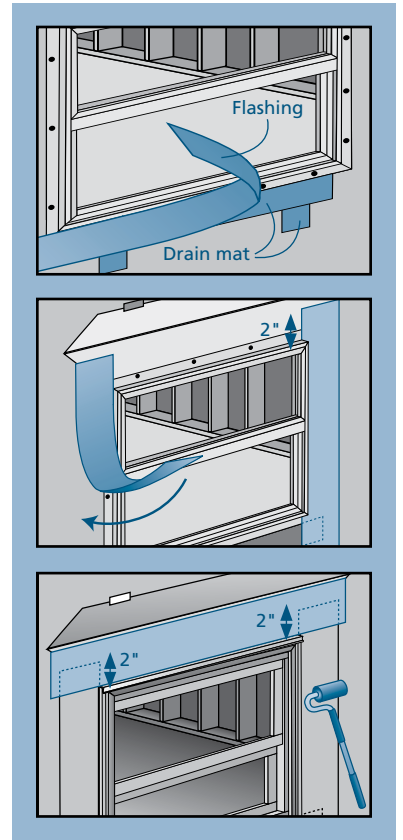
Apply spray adhesive (protect window from overspray) as instructed to nail fin and building wrap around the window as shown.



APPLY THE SELF-ADHESIVE FLASHING

Note! Keep the edge of the JELD-WEN self-adhesive flashing as close to the window frame as possible and apply over the nail fin.

1. If installing a window rated above DP50, center and apply 6" wide flashing below the sill.
2. Apply the side pieces starting 2" above the header and overlap the drain mat on the sill as shown.
3. Center and apply the header piece above the header, overlapping the side pieces as shown.
4. Press the flashing down with a J-roller, being careful to remove any gaps or bubbles beneath self-adhesive flashing (remove and replace if necessary).



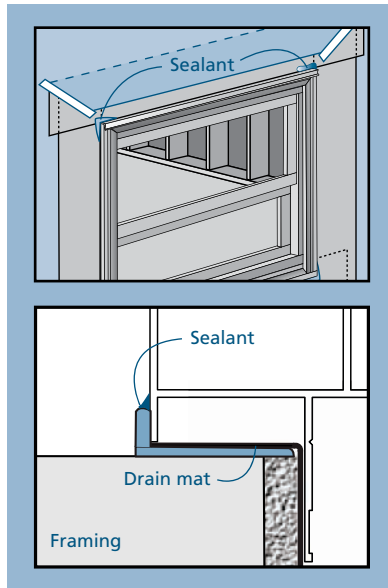
7 COMPLETE INSTALLATION

1. Release the building wrap from above the header (previously taped up) and overlap the header flashing. Seal the ends with self-adhesive flashing or building wrap tape.

2. Adjust window for best operation.

3. Seal the top corners of the window with a 1/4" bead of sealant. Tool into a fillet shape.

4. Create a continuous air seal on the interior by integrating the rough opening and the window frame with low expansion polyurethane foam or backer rod and sealant. If installing into wood framing with a drain mat, apply sealant to the foam wedge on the back of the drain mat, integrating the back of the drain mat with the window frame and the rough opening.



5. Ensure weep holes/channels are clear of debris for proper water drainage. Do not seal weep holes/channels.

AFTER INSTALLATION

- Install exterior wall surface within 30 days of window installation.
- Maintain gap of 1/4" - 3/8" between window frame and final exterior wall surface.
- Protect recently installed units from damage from plaster, paint, etc. by covering the unit with plastic.

Please visit jeld-wen.com/resources for warranty and care and maintenance information.

Thank you for choosing

